

REMARKS

Favorable reconsideration of this application in view of the foregoing amendments and the following remarks is respectfully requested. Of claims 1-19 that were pending in the application, claims 1-3 and 8 were rejected in the Office Action.

Applicant appreciates the allowance of claims 10-19 and the indication of allowable subject matter in claims 4-7 and 9. In response to this positive indication, Applicant has amended claim 4 (*i.e.*, the claim from which claim 5 depends), claim 6 (*i.e.*, the claim from which claim 7 depends), and claim 9 to be in independent claim format. As a result, claims 4-7 and 9 should be in condition for allowance.

Claims 2, 5, and 7 were also amended, without narrowing the scope of these claims, to correct a typographical error (*i.e.*, “comprising;” was corrected to be “comprising:”). Finally, Applicant also amended claim 1, without adding new matter.

Accordingly, claim 1-19 are respectfully submitted for further consideration.

1. Information Disclosure Statements

Applicant appreciates the acknowledgement (by way of initials) that the Examiner considered each of the references submitted with the Information Disclosure Statements filed on July 15, 2003 and December 18, 2003.

2. Rejections of Claims 1-3 and 8

The Office Action rejected claims 1, 2, and 8 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,778,862 (“Fukui”). In addition, the Office Action rejected claim 3 under 35 U.S.C. § 103(a) as allegedly being obvious in view of Fukui. For the following reasons, Applicant respectfully traverses these rejections.

As amended claim 1 (*i.e.*, the claim from which claims 2, 3, and 8 depend) recites a control apparatus for an engine that includes, among other possible things (*italic emphasis and reference letters added*):

- a crank angle detector detecting a reference crank angle for each stroke phase difference between cylinders; and
- a control unit that receives a detection signal of said crank angle detector, updates a cylinder discrimination value based on a previous cylinder discrimination value, and outputs a control signal for each cylinder based on said cylinder discrimination value,

wherein said control unit is [a] arranged to detect a reverse rotation of said engine,

AMENDMENTS TO THE DRAWINGS

The description of step S24 has been corrected in each of Figures 5 and 6. Specifically, in both figures 5 and 6, step S24 has been amended to replace an incorrect "CLYBUF = \emptyset " with the correct "CLYBUP = 0". Support for these changes is provided on page 12, lines 14-16 and on page 14, lines 8-9 for Figures 5 and 6, respectively.

wherein said control unit is [b] configured to detect whether fuel in said engine is burned during the reverse rotation of the engine, and wherein said control unit [c] prohibits the outputting of said control signal for each cylinder based on said cylinder discrimination value, [d] upon detection of burning of the fuel during the reverse rotation of said engine.

As hereafter explained Fukui fails to teach or suggest such a control apparatus for an engine.

The above-italicized language is similar to the language in allowed claim 10, which the Examiner stated justified claim 10's allowance. Specifically, the Examiner stated that claim 10 is (with comparable reference letters added):

allowable over the prior art because the prior art fails to teach or suggest [a] the burning detecting means for detecting whether or not fuel is burned [b] during reverse rotation of the engine in combination with the control for each cylinder [c] prohibiting means [d] which takes into account the burning detecting means as claimed.

Similar to this allowable language of claim 10, claim 1 now recites that the control unit: [a] is arranged to detect a reverse rotation of the engine; [b] is configured to detect whether fuel is burned during the reverse rotation; and [c] prohibits the outputting of the control signal when [d] it is determined that fuel was burned during a reverse rotation.

In light of the forgoing, claim 1 is allowable over Fukui for at least the same reasons as claim 10. Moreover, as claims 2, 3, and 8 depend from claim 1, each of these dependent claims is also allowable over Fukui, without regard to the other patentable limitations recited therein. Accordingly, Applicant respectfully requests a withdrawal of the rejection of claims 1, 2, and 8 under § 102(b) and the rejection of claim 3 under § 103(a).

CONCLUSION

For the aforementioned reasons, claims 1-19 are now in condition for allowance. A Notice of Allowance at an early date is respectfully requested. The Examiner is invited to contact the undersigned if such communication would expedite the prosecution of the application.

Respectfully submitted,

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THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED REGARDING THIS APPLICATION UNDER 37 C.F.R. §§ 1.16-1.17, OR CREDIT ANY OVERPAYMENT, TO DEPOSIT ACCOUNT NO. 19-0741. SHOULD NO PROPER PAYMENT BE ENCLOSED HERewith, AS BY A CHECK BEING IN THE WRONG AMOUNT, UNSIGNED, POST-DATED, OTHERWISE IMPROPER OR INFORMAL OR EVEN ENTIRELY MISSING, THE COMMISSIONER IS AUTHORIZED TO CHARGE THE UNPAID AMOUNT TO DEPOSIT ACCOUNT NO. 19-0741. IF ANY EXTENSIONS OF TIME ARE NEEDED FOR TIMELY ACCEPTANCE OF PAPERS SUBMITTED HERewith, APPLICANT HEREBY PETITIONS FOR SUCH EXTENSION UNDER 37 C.F.R. § 1.136 AND AUTHORIZES PAYMENT OF ANY SUCH EXTENSIONS FEES TO DEPOSIT ACCOUNT NO. 19-0741.